

Patent Application
Attorney Docket No.: 27124-2

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Canceled)

1 3. (Currently amended) An The apparatus of
2 claim 2 for monitoring the movement of a patient's
3 spine comprising:
4 an elongated member adapted to be disposed
5 longitudinally adjacent to the patient's spine and
6 further adapted to be flexible in the midsagittal plane
7 and substantially inflexible in the frontal plane;
8 a first sensor mounted to the elongated
9 member and disposed to monitor flexion and extension
10 motion of the patient's spine in the midsagittal plane,
11 wherein the first sensor includes at least one strain
12 gage; and
13 a second sensor mounted to the elongated
14 member and disposed to monitor lateral motion of the
15 patient's spine in the frontal plane, wherein the
16 second sensor is an optical sensor.

4. (Canceled)

1 5. (Currently amended) An The apparatus of
2 claim 4 for monitoring the movement of a patient's
3 spine comprising:
4 an elongated member adapted to be disposed
5 longitudinally adjacent to the patient's spine and

Amendment and Response

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6 further adapted to be flexible in the midsagittal plane
7 and substantially inflexible in the frontal plane;
8 a first sensor mounted to the elongated
9 member and disposed to monitor flexion and extension
10 motion of the patient's spine in the midsagittal plane;
11 and
12 a second sensor mounted to the elongated
13 member and disposed to monitor lateral motion of the
14 patient's spine in the frontal plane, wherein the
15 second sensor is an optical sensor, and further wherein
16 the second sensor is an optical mouse sensor.

6. (Canceled)

7. (Canceled)

1 8. (Currently amended) An The apparatus of
2 claim 1 for monitoring the movement of a patient's
3 spine comprising:
4 an elongated member adapted to be disposed
5 longitudinally adjacent to the patient's spine and
6 further adapted to be flexible in the midsagittal plane
7 and substantially inflexible in the frontal plane,
8 wherein the elongated member has a first end and a
9 second end opposite the first end;
10 a first sensor mounted to the elongated
11 member and disposed to monitor flexion and extension
12 motion of the patient's spine in the midsagittal plane,
13 and further wherein the first sensor is mounted to the
14 elongated member near the first end; and

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15 a second sensor mounted to the elongated
16 member and disposed to monitor lateral motion of the
17 patient's spine in the frontal plane, wherein and the
18 second sensor is mounted to the elongated member near
19 the second end.

9. (Canceled)

1 10. (Currently amended) An The apparatus of
2 claim 9 for monitoring the movement of a patient's
3 spine comprising:

4 an elongated member adapted to be disposed
5 longitudinally adjacent to the patient's spine and
6 further adapted to be flexible in the midsagittal plane
7 and substantially inflexible in the frontal plane;

8 a first sensor mounted to the elongated
9 member and disposed to monitor flexion and extension
10 motion of the patient's spine in the midsagittal plane,
11 wherein the first sensor is adapted to be disposed
12 along the patient's spine at approximately the location
13 of the 1st sacral vertebrae; and

14 a second sensor mounted to the elongated
15 member and disposed to monitor lateral motion of the
16 patient's spine in the frontal plane, wherein the
17 second sensor is adapted to be disposed along the
18 patient's spine at approximately the location of the
19 12th thoracic vertebrae.

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11. (Currently amended) ~~An~~ The apparatus of
claim 1 for monitoring the movement of a patient's
spine comprising:

an elongated member adapted to be disposed
longitudinally adjacent to the patient's spine and
further adapted to be flexible in the midsagittal plane
and substantially inflexible in the frontal plane;

a first sensor mounted to the elongated
member and disposed to monitor flexion and extension
motion of the patient's spine in the midsagittal plane;

a second sensor mounted to the elongated
member and disposed to monitor lateral motion of the
patient's spine in the frontal plane; and

~~further comprising~~ a corset wearable by the
patient and having a pocket, wherein the elongated
member is substantially disposed inside of the pocket.

12. (Previously presented) The apparatus of
claim 11 wherein the second sensor is disposed inside of the
pocket.

13. (Previously presented) The apparatus of
claim 12 wherein the corset includes a track disposed inside
of the pocket, and further wherein the second sensor is an
optical sensor disposed to detect movement of the track as
the patient's spine moves laterally in the frontal plane.

14. (Canceled)

15. (Canceled)

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16. (Canceled)

1 17. (Previously presented) An apparatus for
2 monitoring the movement of a patient's spine
3 comprising:

4 an elongated member adapted to be disposed
5 longitudinally along the patient's spine, wherein the
6 elongated member has a first end and a second end
7 opposite the first end;

8 a first sensor mounted to the elongated
9 member and disposed to monitor flexion and extension
10 motion of the patient's lumbar spine in the midsagittal
11 plane, wherein the first sensor is mounted to the
12 elongated member near the first end; and

13 a second sensor mounted to the elongated
14 member and disposed to monitor lateral motion of the
15 patient's lumbar spine in the frontal plane, wherein
16 the second sensor is an optical sensor, and further
17 wherein the second sensor is mounted to the elongated
18 member near the second end.

1 18. (Previously presented) The apparatus of
2 claim 17 wherein the second sensor is an optical mouse
3 sensor.

1 19. (Previously presented) The apparatus of
2 claim 17 further comprising a computer in electrical
3 communication with the second sensor, wherein the computer
4 includes a display having a cursor, wherein the second

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5 sensor controls movement of the cursor, and further wherein
6 the computer interprets the position of the cursor to
7 graphically show lateral movement of the patient's spine on
8 the display.

1 20. (Previously presented) The apparatus of
2 claim 17 further comprising a corset wearable by the
3 patient, wherein the corset includes a pocket and a track
4 disposed inside of the pocket, and further wherein the
5 second sensor is disposed inside of the pocket to detect
6 movement of the track as the patient's spine moves laterally
7 in the frontal plane.